ERLIKH, B.M., inzh.; TANAYANTS, A.A., inzh.

Controlling air pollution. Neftianik 5 no.7:27 Jl '60.
(MIRA 14:9)
1. Groznenskiy neftepereabatyvayushchiy zavod.
(Air--Pollution)

TANAYEV, A. A. Cand Tech Sci -- (diss) "Effect of gravity on the flow *the force of upon movement* in laminar boundary layers." Kuybyshev, 1956. 16 pp 29 cm. (Min of Higher Education USSR. Kuybyshev Industrial Inst im V. V. Kuybyshev), 100 copies

(KL, 7-57, 107)

45

TANAYEV, A.A.

Effect of free convection on the resistance coefficient of plates in laminary. Zhur.tekh.fiz.26 no.11:2563-2569 N '56.   (MIRA 10:1)
                              (Boundary layer)

TANAYEV, A.A. TANAYEV, H.H.

SUBJECT	USSR / PHYSICS	CARD 1 / 2	PA - 1826

AUTHOR TANAEV,A.A.

TITLE The Heat Transfer under the Conditions of a Free Laminar Motion of a Gas with varying Viscosity on a Vertical Wall.

PERIODICAL Zurn.techn.fis, 26, fasc.12, 2714-2719 (1956)
Issued: 1 / 1957

In the present work the attempt is made to obtain a theoretical solution of the problem of the free convection of a gas on a vertical wall in consideration of the temperature-dependent variability of viscosity. The mathematical problem is formulated by means of a system of dimensionless equations in which $\mu = \mu\,(T)$ is the viscosity coefficient and $\varrho = \varrho\,(T)$ denotes density. The problem is then simplified by assuming heat transfer to take place only under the effect of a free convection and on a wall of infinite length. A system of differential equations is obtained which is solved by the method of successive approximations. The differential equations obtained can be transformed into such for an incompressible liquid. The dependence obtained by MIHEEV for the case of a developed laminar state of flow on the conditions of a free convection on a vertical wall $Nu_m = 0.54\,(GrPr)_m^{1/4}$ is transformed for air (Pr=0.722) in $\dfrac{Nu_m}{Gr_m^{1/4}} = 0.497$. In thi

work a comparison between theoretical and experimental dependences is graphically shown. Besides, a diagram represents the curves

Žurn.techn.fis,$\underline{26}$, fasc.12, 2714-2719 (1956) CARD 2 / 2   PA - 1826

$$\frac{Nu_m}{Gr_m^{1/4}} = f\left(\frac{T_w}{T_\infty}\right)$$ of second and third approximation, the computation of which presents no difficulties in principle. This comparison shows that the conditions serving as a basis for the theoretical solution in reality represent a wide range of the temperature drop with satisfactory clearness. Thus, the difference between theoretical and experimental values within the domain

$\frac{T_w}{T_\infty} = 0.5 \div 2.5$ is not more than 10% for the expression $\frac{Nu_m}{Gr_m^{1/4}}$. Gr_m is GRASHOF'S number.

INSTITUTION: Industrial Institute V.V.Kujbyšev.

JANAYEV A-A   TANAEV, A.A.

SUBJECT	USSR / PHYSICS
AUTHOR	TANAEV, A.A.
TITLE	The Influence Exercised by Free Convection on the Resistance Coefficient of a Plate in the Case of a Laminar Behavior of the Flow in the Boundary Layer.
PERIODICAL	Zurn.techn.fis, 26, fasc.11, 2563-2569 (1956)
	Issued: 12 / 1956

CARD 1 / 2   PA-1843

The influence exercised by the forces of gravitation on the flow in a laminar boundary layer has hitherto been but little studied. The present work makes the attempt to solve this problem for the case of a compressible gas flowing round a plane plate at low values of FROOD'S criteria. - At first this problem is expressed by a system of dimensionless equations which are explicitly written down. Next, a relation for the external flow round a plane plate is obtained. The system of equations first mentioned is several times transformed, after which the corresponding boundary conditions are written down. - One of the (simplified) equations of the transformed system is solved by using an approximated dependence for temperature by means of the operation method. On this occasion a LAPLACE transformation is several times applied to these equations. In order to be able to use the tables of the incomplete Γ -function a substitution of the variable is introduced. After some further computations formulae for the resistance coefficient of the plate are obtained as well as for the value of the resistance coefficient averaged over the length. Finally, the numerical values of the coefficients are introduced into the formulae.

After carrying out the corresponding computations the value 0.722 is obtained for the average (apparently dimensionless) velocity. On the assumption that this value 0,722 is not invariable in the case of low values of $(Gr/Re^2)\cos \alpha$, a formula for the computation of the relative resistance coefficient is then derived. The accuracy of approximation is estimated and found to be satisfactory.

For the relative resistance coefficient the following formula is found:

$\bar{c}_f/\bar{c}_{f,(Gr/Re^2)=0} = 1-0,498(Gr/Re^2)\cos \alpha$. (The significance of Gr is not mentioned and Re denotes REYNOLD'S criterion). If, for the limit of the influence exercised by the force of gravitation, the equation

$\bar{c}_f/\bar{c}_{f,(Gr/Re^2)} \leq 1,05$ is assumed, a dependence is obtained by satisfying which it is possible to neglect the influence exercised by the forces of gravitation on the summary resistance coefficient $(Gr/Re^2)\cos \alpha \leq 0,1$. The relative modification of the coefficient of heat transfer by the influence of the forces of gravitation is not greater than the corresponding modification of the resistance coefficient averaged over the length.

INSTITUTION:

SOV/124-58-10-11220

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 10, p 74 (USSR)

AUTHOR: Tanayev, A.A.

TITLE: On the Determination of the Influence of the Force of Gravity on
            Motion in a Laminar Boundary Layer (K voprosu opredeleniya vli-
            yaniya sily tyazhesti na dvizheniye v laminarnom pogranichnom sloye)

PERIODICAL Sb. nauchn. tr. Kuybyshevsk. industr. in-ta, 1957, Nr 7, pp 81-87

ABSTRACT: The usual equations of the boundary-layer flow of a viscous liquid
            are examined for the case of $M \ll 1$ $\mu = ci$ wherein the speed of the free
            flow is specified as $u = Ax^m$. Here i is the heat content, β is the angle
            of divergence of the wedge in the stream-flow, $m = \beta/2 - \beta$, and μ is
            the viscosity. Consideration of the force of gravity results in the
            addition of a term proportional to the Froude number F. It is as
            sumed that $F \ll 1$. Taking advantage of the fact that this problem has
            been solved for the condition of $F = 0$ the author seeks the solution ac-
            cording to powers of Froude number and reduces the problem to a
            system of ordinary nonlinear differential equations. Neither the solu-
            tion nor the analysis for even the first approximation of the system
Card 1/1   are given.   V.I. Merkulov

TANAYEV, A.A.

EFFECT OF FREE CONVECTION ON THE
COEFFICIENT OF RESISTANCE OF A PLATE
WITH A LAMINAR FLOW REGIME IN THE BOUND-
ARY LAYER. A. A. Tanaev. Sov. Phys. - Tech.
Phys., No. 11, 1957, pp. 2,477-2,483. Translation.
Analysis of the effects of gravity on laminar bound-
ary layer for the case of streamline flow in a com-
pressible gas around a flat plate with small values
for Froude's criterion.

57 28 4 30/39

AUTHOR: Tanayev, A. A.

TITLE: The Influence of Gravity Upon the Motion in the Laminar
                 Boundary Layer at a Longitudinal Flow of Gas Along the
                 Plate (Vliyaniye sily tyazhesti na dvizheniye v laminar-
                 nom pogranichnom sloye pri predol'nom obtekanii plastinki
                 gazom)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 4, pp.862-871
                 (USSR)

ABSTRACT: The solution of the system of differential equations for
                 a laminar boundary layer forming during the longitudinal
                 flow round a plate by a uniform gas-flow is given here.
                 The problem was solved under the condition that

$$\frac{Gr}{Re^2} \cos\alpha < 1$$

                 Gr - Grashof's coefficient, Re - Reynolds's number,
                 α - angle between the direction of the non-excited flow
                 and that of gravitational acceleration. It is shown that
Card 1/3   the influence of gravity upon the motion in the laminar

57 28 4-30/39

The Influence of Gravity Upon the Motion in the Laminar Boundary Layer
at a Longitudinal Flow of Gas Along the Plate

boundary layer in the case of a strong nonisothermal course
of the flow can be very considerable, from the equation (35)
derived here follows e.g. that in the case of the longi-
tudinal flow round the plate by the air and when $u_\infty = 4$ m/sec
(Longitudinal component of velocity), $l = 0.5$ m (length
f plate), $T = 273$ K, T_w, $T_w = 294$ K (T_w temperature
at the wall) the drag factor var according to the inclina-
tion angle of the plate, change within the range of

$$0.54 < \frac{C_f}{C_f} < 1.34$$

C_f drag factor.   For the determination of the drag
factor and of Nusselt's coefficient in the case of a longi-
tudinal flow round the plate by air the formulae (35) (36),
as well as (47) (50) are recommended. It is true that the
method of calculation of the modification of the drag fac-
tor at the expense of the influence of gravity on the
basis of the solution of a linearized equation of motion
yields rough results, but it can be recommended for the

Card 2/3

57-28-4-30/39

The Influence of Gravity Upon the Motion in the Laminar Boundary Layer,
at a Longitudinal Flow of Gas Along the Plate

                evaluation of the order of magnitude in those cases where the
method of the series expansion with respect to the powers
of the small parameter cannot be employed. There are 6
figures and 4 references, 3 of which are Soviet.

ASSOCIATION: Kuybyshevskiy industrial'nyy institut
                  (Kuybyshev Industrial Institute)

SUBMITTED: November 20, 1956

Card 3/3

TANAYEV, I.V.; VASIL'YEVA, V.P.

Solubility of lanthanum phosphate in phosphoric acid solutions.
Zhur.neorg.khim. 9 no.1:213-214 Ja '64.

(MIRA 17:2)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR.

REZNIKOV, I.L.; TANAYEV, A.F.; SOLOV'YEV, Yu.V.

Material and heat balance of kilns for the dewatering of
carnallite in a fluidized bed. TSvet.met. 38 no.10:53-58
O '65.   (MIRA 18:12)

SOLOV'YEV, Yu.V.; REZNIKOV, I.L.; TANAYEV, A.F.

Dehydration of carnallite in industrial fluidized bed
furnaces in a stream of furnace gases containing hydro-
gen chloride. TSvet. met. 37 no.11:70-74 N '64.   (MIRA 18:4)

KAGAN, B.M., doktor tekhn. nauk; DOLKART, V.M., kand. tekhn. nauk; NOVIK, G.Kh.,
    kand. tekhn. nauk; STEPANOV, V.N., inzh.; KANEVSKIY, M.M., inzh.;
    LUK'YANOV, L.M., inzh.; TANAYEV, M.Ya., inzh.; POLYAKOV, V.N., inzh.;
    KOLTYPIN, I.S., inzh.; UL'YANOVA, Ye.K., inzh.; ADAS'KO, V.I., inzh.;
    MOLCHANOV, V.V., inzh.; VOITELEV, A.I., inzh.

The "VNIIEM-1" universal control computer. Elektrotekhnika 35 no.7:
4-10 '64.   (MIRA 17:11)

AUTHOR: Tanayev, V.S.

TITLE: On a mechanical transformation of plane curves

PERIODICAL: Referativnyy zhurnal, Matematika, no. 5, 1962, 66,
             abstract 5A421. ("Izv. Krymsk. ped. in-ta", 1961, 35,
             315-319)

TEXT: Several instruments are described which, on the basis of the
birational transformation

$x' = (x^2 y - \alpha x^3)/(xy + \alpha y^2)$, $y' = (xy - \alpha x^2)/(\alpha y + x)$, can produce

some curves of 3rd order ; here $M'(x',y')$, $M(x,y)$ are the corresponding
points and α is a parameter. The transformation is effected by
eliminating the coordinates X,Y of point N from the ratios:

$$\frac{y'}{x'} = \frac{Y}{X} \; ; \; \frac{y'}{x'} = -\frac{X}{Y} \; ; \; X = x \; ; \; \frac{x' - X}{y' - Y} = -\alpha \; ,$$

Card 1/2

On a mechanical transformation ...   S/044/62/000/005/005/072
                                           C111/C333

obtained from the similarity of triangles in which the straight line MM'
goes through the coordinates' origin O, ON is perpendicular to M'M and
MN is perpendicular to the O_x axis.

Abstracter's note : Complete translation.

Card 2/2

TANAYEV, V.S.

A problem in scheduling theory. Vestsi AN BSSR. Ser. fiz.-tekh.
nav. no.4:128-131 '64.

(MIRA 18:3)

TANAYEV, V.S.

Problem of scheduling the operation of a production line with
a single automatic operator. Inzh.-fiz. zhur. 7 no. 3:111-114
Mr '64.   (MIRA 17:5)

1. Institut teplo- i massoobmena AN. BSSR, Minsk.

TANAYEV, V.S.

Scheduling theory. Dokl. AN BSSR 8 no.12:792-794 D '64.   (MIRA 18:4)

1. Institut teplo- i massoobmena AN BSSR.

L 11452-67   EWT(d)/EWT(k)/EWT(h)/EWP(1)/EWP(v)

ACC. NR: AP6027308   (A)   SOURCE CODE: UR/0428/66/000/002/0005/0011

AUTHOR: Blokh, A. Sh.; Tanayev, V. S.

ORG: none

TITLE: Multioperator processes

SOURCE: AN BSSR. Vesti. Seryya fizika-matematychnykh navuk, no. 2, 1966, 5-11

TOPIC TAGS: mathematic analysis, industrial program, machine industry, operations research

ABSTRACT: The authors examine the problem of compiling an optimum procedure schedule for processing n articles of the same type on m machines. The processing time of each article on the ith machine is t_i; s identical transfer operators are used for the interoperational transfer of articles. Each of these operators simultaneously transports only one article. The time taken by an operator in moving the article being processed from the ith to the $(i + 1)$th machine is σ_i; and the time taken for the unloaded operator to move from the $(i + 1)$th machine to the jth is ij. The assumption is made that no less than $\theta_i \geq 0$ of time must lapse between termination of processing of a certain article by one machine until the start of processing of the next article by this machine. The processing sequence on all machines is identical and the processing of each article is continuous from instant v to instant $v+t_i$; then in σ_i time units

Card   1/2

L 114521-67

ACC NR: AP6027308

one operator delivers this article to the second machine, which begin to process it at time $v+t_i+\sigma_i$, until processing of this article is complete at time $v+z_m$, where $z_u =$

$$\sum_{i=1}^{u} t_i + \sum_{i=1}^{u-1} \sigma_i.$$

Under these conditions calendar periods of processing are unambiguously determined by giving times $v_1, v_2, \ldots, v_n$ at which article processing begins (v_j is instant of start of processing of article with ordinal number j). The theorems developed are: (1) among the periodic integral schedules of the s-operator procedure of processing articles in a system with integral parameters there is an optimum schedule, and (2) among these optimum finite schedules there is an integral periodic schedule. Orig. art. has: 9 formulas.

SUB CODE: 12,13/ SUBM DATE: 23Jun65/ ORIG REF: 008/ OTH REF: 001

Card   2/2   jb

SOKOL'SKIY, D.V.; SHMONINA, V.P.; TANEYEVA, G.V.

Polarographic determination of acetic and crotonic aldehydes
in a mixture. Zav. lab. 30 no.7:793-794 '64.   (MIRA 18:3)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova.

TANAYEVA, S.A.

Experimental study of unsteady liquid flow in capillary-porous bodies. Inzh.-fiz. zhur. 10 no.1:51-54 Ja '66.

(MIRA 19:2)

1. Institut teplo- i massoobmena AN BSSR, Minsk. Submitted March 29, 1965.

TANAYEVSKIY, V.A.

TANAYEVSKIY, V.A.

Economic types of local administrative districts. Top. geog. no.41:
110-118 '57.   (MIRA 10:12)
                          (Economic zoning)

TANAYEVSKIY, V.A.

Relation of industries to their sources of supply in the economic regions of the U.S.S.R. Uch. zap. Perm. gos. un. 15:3-8 '60.
(MIRA 14:12)

(Geography, Economic)

TANBORG, K.

TANBORG, Karsten

Swedish workers have won the first stage in the struggle for
higher pensions. Vsem.prof. dvizh. no.1:34-36 Ja '58.
(MIRA 11:1)

1.Chlen komiteta Stokgol'mskogo otdeleniya profsoyuza stroitel'nykh
rabochikh.   (Sweden--Pensions)

TANC, J.

CZECHOSLOVAKIA/Electricity - Semiconductors.   G

Abs Jour   : Ref Zhur Fizika, No 11, 1959, 25342

Author   : Tanc, Jan; Abrahon, Antonin

Inst   : Institute of Technical Physics, Prague, Czechoslovakia

Title   : The Quantum Efficiency of the Internal Photoelectric
              Effect in Indium Antimonide

Orig Pub   : Askosl. casop. fys., 1958, 8, No 6, 653-657

Abstract   : A method has been developed for the measurement of the
              relative quantum efficiency of the internal photoeffect
              in semiconductors, using simultaneous measurements of
              the photomagnetoelectric effect and mobility. Results
              are given on the measurements with InSb. The quantum
              efficiency begins to increase if the photon energy ex-
              ceeds 0.47 ev at room temperature. The variation of the
              quantum efficiency as a function of the photon energy

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CZECHOSLOVAKIA/Electricity - Semiconductors.

G

Abs Jour   : Ref Zhur Fizika, No 11, 1959, 25342

is considered on the basis of representation of impulse
ionization and it is indicated that by studying the struc-
ture of this variation it is possible to obtain informa-
tion on the band structure of the semiconductor in the
region of high energics of electrons and holes.

Card 2/2

- 63 -

KAKUYEVITSKIY, Valeriy Aleksandrovich; TANCHAROVA, V., red.; GORKAVENKO, L.,
tekhn.red.

[Centralized reconditioning of motor-vehicle parts; technical and
economic foundation, problems of organization] TSentralizovannoe
vosstanovlenie detalei avtomobilei; tekhniko-ekonomicheskoe obosno-
vanie, voprosy organizataii. Kiev, Gos.izd-vo tekhn.lit-ry USSR, 1960.
53 p.   (MIRA 13:9)
        (Motor vehicles--Maintenance and repair)

GEL'TS, Vladimir Emil'yevich [Hel'ts, V.E.]; TANCHAROVA, V., red.;
LAGUTIN, I.[Lahutin, I.], tekhn. red.

[Use of plastics in the manufacture of machinery and instruments]
Zastosuvannia plastychnykh mas u mashino- i pryladobuduvanni.
Kyiv, Derzh. vyd-vo tekhn. lit-ry URSR, 1960. 68 p.
(MIRA 15:3)

(Machinery industry) (Instrument industry) (Plastics)

KHARCHENKO, Pavel Fedorovich; TANCHAROVA, V., red.; GORKAVENKO, L.,
        tekhn. red.

    [Specialization and cooperation in foundry practice] Spetsiali-
    zatsiia i kooperirovanie v liteinom proizvodstve. Kiev, Gos. izd-
    vo tekhn. lit-ry USSR, 1961. 75 p.   (MIRA 14:11)
                              (Founding)

MANZON, Aleksandr Isaakovich; TANCHAROVA, V.P., red.; GORKAVENKO, L.I.
[Horkavenko, L.I.], tekhn. red.

[Safety regulations and factory sanitation] Tekhnika bezpeky ta
vyrobnycha sanitariia. Kyiv, Derzh. vyd-vo tekhn. lit-ry
URSR, 1961. 88 p.   (MIRA 15:3)
    (Safety regulations)   (Factory sanitation)

PALAMARENKO, Aleksandr Zakharovich; TANCHAROVA, V., red.;
POSMETUKHIN, N., tekhn. red.

[Safety measures in bench work] Tekhnika bezopasnosti pri
slesarnykh rabotakh. Kiev, Gos. izd-vo izd-vo tekhn. lit-ry
USSR, 1961. 90 p.   (MIRA 15:4)
                (Machine-shop practice--Safety measures)

SAPOZHNIKOV, Yefimov Nus'yevich; RODIONOV, Vasiliy Nikolayevich;
GARASHCHENKO, Grigoriy Matveyevich; TANCHAROVA, V., red.;
SYCHUGOV, V., tekhn. red.

[Manual for an amateur boating enthusiast] Posobie sudovo-
diteliu-liubitelu. Kiev, Gos. izd-vo tekhn. lit-ry, 1961.
215 p.   (MIRA 15:3)
                    (Boats and boating)

KOMAROVSKIY, Yuriy Petrovich; TANCHAROVA, V.F., red.; MATUSEVICH, S.M., tekhn. red.

[Power tools for the mechanic] Mekhanizirovannyi slesarnyi in-strument. Kiev, Gostekhizdat USSR, 1962.   78 p.   (MIRA 15:7)
(Power tools)

VYPERAYLENKO, Aleksandr Ivanovich, inzh.; DETOCHKA, I.I., inzh.,
        retsenzent; TANCHAROVA, V.F., red.izd-va; ROZUM, T.I.,
        tekhn. red.

[Automation of industrial transport] Avtomatizatsiia pro-
myshlennogo transporta. Kiev, Gostekhizdat USSR, 1963.
                                            (MIRA 17:4)
307 p.

TANCHENKO, I.M.; SINGAYEVSKIY, O.N.; LIVSHITS, Yu.A. (Kiyev)

Production of fodder antibiotics in the alcohol industry. Anti-
biotiki 5 no.6:107-111 N-D '60.   (MIRA 14:3)
                              (ANTIBIOTICS)

S/071/60/000/005/001/001
A053/A129

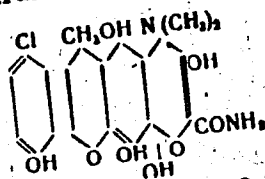AUTHORS: Tanchenko, I. M., Savchenko, N. Ya., Semernya, V. M.

TITLE: Production of biomycine at the Nemeshayevo Food Antibiotics Plant

PERIODICAL: Spirtovaya promyshlennost', no. 5, 1960, 24 - 28 Vol. 26

TEXT: Preparation БКВ (BKV, Vitaminized Food Biomycine) constitutes a biomycine-vitamine complex intended for feeding of fowl and cattle, for stimulation of their growth, as well as for prophylactic and healing purposes. BKV is a product of the activity of radiant fungi - Actinomyces aurefaciens. BKV contains: biomycine 50 mg/g, vitamin B12, albumen 42 - 48%, sugar 6 - 8%, fat 9 - 12%, moisture 6 - 8%. The structural formula of biomycine is as follows:

Cl   CH₂OH N(CH₃)₂
              OH

              CONH₂

OH   O OH   O
          OH

The empirical formula of biomycine is $C_{22}H_{23}O_8N_2Cl$, the molecular weight is

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A053/A129

Production of...

478.5. Biomycine in conjunction with acids forms salts, which are soluble in
alcohols. Quantities of biomycine are measured in activity units. One activity
unit equals 1 millionth part of a gram of chemically pure biomycine. A table
gives the characteristics of the raw material which goes into the production of
BKV. There are tow methods of producing food biomycine: the method of direct
dressing of fodder with biomycine and the method of deep fermentation. In the
Nemeshayevo Plant food biomycine is produced by the latter method, as a result of
which, in addition to biomycine, vitamin B_{12} is obtained. The technological system
of production is shown in the graph. The method of deep fermentation consists in
the culture of Actinomyces aurefaciens, raised in retorts on special rockers during
32 - 40 hours, afterwards in special apparatus, so-called seed fermenters and
later in working fermenters. The aim of the first stage, in the seed fermenter, is
to obtain the maximum amount of seed material, and of the second stage, in the
working fermenter, to obtain the maximum amount of biomycine. The apparatus which
is kept strictly sterile, is charged in consecutive order with sodium chloride,
ammonium nitrate and corn extract. The medium for brewing up starch is heated to
80°C, when 0.4% of chalk diluted in water is added. After verification of the pH,
vegetable oil is added and the medium sterilized. The growth of seed material in
the seed fermenter is done under constant stirring and aeration. Every six hours

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S/071/60/000/005/001/CCi
A053/A129

Production of...

a sample is taken and examined with regard to quality of culture and sterility. On the roof of the fermenter a reservoir is located containing foam extinguisher. The article describes the preparation of the fluid (medium) for the working fermenter. The fluid is sterilized in the cooker consisting of 150-mm tubes having a capacity of 1 m^3. Having cooled down to 30 - 29°C the fluid enters the working fermenter, which also receives the growing seed material to which benzyl rhodanide is added. Fermentation is being conducted at a temperature of 26 - 28°C. During the entire process the mdium is thoroughly stirred by 3 mixers and by filtered air coming from a turbo-compressor. After the close of fermentation the cultural liquid is pumped from the working fermenter into a settling tank, in which the liquid is intensively stirred, while alkali up to 7.7 - 7.8 pH is added. At pH below 7, biomycine is in a dissolved state, at pH above 7, biomycine comes out in the sediment in the shape of calcium salt. The liquid is then filtered in a filter press with a filtering surface of 100m^2. The filtered sediment is dried of all moisture first by air being blown through and afterwards by processing in a conveyor-type steam-heated kiln ПКС-20 (PKS-20) with a working surface of 20 m^2. The dry preparation is passed through a micromill and homogenizer, which mixes and grinds it to powder consistency. The BKV is then packed in Kraft paper bags, each package weighing 20 kg. Follow-up work and production control in the preparation

Card 3/6

Prcduction of...   S/071/60/000/005/001/001
                                                    A053/A129

of biomycine is carried out by the plant laboratory which is divided into three
departments: the fluid (medium)-preparing laboratory, the micro-biological lab-
oratoty and the chemical laboratory. The chemical laboratory determines the ac-
tivity and humidity of the finished product and prepares the certificates for the
BKV. There is 1 diagram.

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Production of...

S/071/60/000/005/001/001
A053/A129

Figure 1: Technological system of production of vitaminized food biomycine BKV
at the Nemeshayevo Plant for food antibiotics
1 - compressor; 2 - compressed air collector; 3 - turbo-blower; 4 - receiver;
5 - coal filters; 6 - air filters for seed fermenters; 7 - air filters for
working fermenters; 8 - seed fermenters; 9 - working fermenters; 10 - pump
for pumping producing mass into settling tank; 11 - settling tank; 12 - pump
for pumping product into filter press; 13 - mixing vat for feeding medium;
14 - pump for pumping feeding medium into sterilizer; 15 - sterilizer; 16 - re-
tainer; 17 - heat exchanger; 18 - filter press; 19 - collector of filtrate;
20 - pump; 21 - grandulator; 22 - steam kiln; 23 - micro-mill; 24 - scales
for weighing finished product

Card 5/6

ANDREYEVA, N.S.; VOYNIK, A.I.; RAYSH, V.G.; TANCHER, N.L.; SHEVCHENKO, M.N.

Oxygen therapy by inhalation and subcutaneous injection. Vrach.delo
no.8:863 .Ag '57.   (MLRA 10:8)

1. Penzenskaya gorodskaya bol'nitsa im. N.A.Semashko
      (OXYGEN--THERAPEUTIC USE)

TANCHER, Vladimir Karlovich. kand.filos.nauk; KLEVTSOV, A.I., kand.filos. nauk, red.; LISENKO, F.K. [Lysenko, F.K.], red.

[Soviet people are building a communist society] Radians'kyi narod buduie komunistychne suspil'stvo. Kyiv, 1958. 46 p. (Tovarystvo dlia poshyrennia politychnykh i anukovykh znan' Ukrains'koi RSR. Ser.1, no.5)   (MIRA 12:3)
          (Russia--Economic conditions)

TANCHEV, G.

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species. Med.letopisi 42 no.5-6:517-519 May-June 1950. (CLML 20:7)

1. Dr. Georgi Tanchev. 2. Institute of General Biology, Medical
Academy, Sofia.

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Study of nephritis in Vrattsa district. Suvrem. med., Sofia 7 no.9:
14-29 1956.

1. Iz Okruzhnata bolnitsa "Khristo Botev" - Vratsa (Gl. lekar:
P. Koler).
(NEPHRITIS, statist.
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X

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no.12:45-55 1957.

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    (BLOOD SEDIMENTATION, in var.dis.
        rate in kidney dis. (Bul))
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        erythrocyte sedimentation rate (Bul))

TANCHEV, I.; EVSTATIEV, Ts.

Considerations on nephritis in the village Beli Izvor in Vratsa. Suvrem. med. Sofia 9 no.1:16 1958.

1. Iz Okruzhna bolnitsa Kh. Botev - Vratsa (Gl. lekar: P. Kolev).
   (NEPHRITIS, epidemiology.
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TANCHEV, I.

Peptic ulcer as a complication of cor pulmonale. Suvrem. med., Sofia 9 no.2:49-54 Feb 58.

1. Iz Okruzhnata bolnitsa Khr. Botev; gr. Vratsa (Gl. lekar: P. Kolev).
    (PULMONARY HEART DISEASE, compl.
        peptic ulcer (Bul))
    (PEPTIC ULCER, compl.
        pulm. heart dis. (Bul))

TANCHEV, I.; KHRISTOV, V.

A case of chronic colitis induced by Balantidium coli. Suvrem.med.
Sofia no.9/10:156-158 '59.

1.Iz Okruzhnata bolnitsa "Khristo Botev" - Vratsa. Glaven lekar:
M. Peev.
    (BALANTIDIASIS case reports)

TANCHEV, I.; MURSEV, N.

Two cases of Felty's syndrome treated by splenectomy. Suvrem.med.
Sofia no.9/10:170-176 '59.

1. Iz Okruzhnata bolnitsa "Khristo Botev" - Vratsa. Gl.lekar:
M. Peev.

      (ARTHRITIS RHEUMATOID surg.)
      (SPLEEN surg.)

TANCHEV, I. (Bolgariya)

Characteristics of the etiology and clinical aspects of chronic nephritis observed in the Vratsa District of Bulgaria. Sov.med. 26 no.10:140-143 O '62.   (MIRA 15:12)
                    (VRATSA DISTRICT—KIDNEYS—DISEASES)

<center>Public Health</center>

BULGARIA

TANCHEV, Y.; District Hospital (Chief Physician T. Rogozhinov), Vratsa

"Death Rate in Villages of the Vratsa District Affected by Endemic Nephritis"

Sofia, Suvremenna Meditsina, Vol 17, No 11, 1966, pp 959-966

Abstract: The death rate in 10 villages of the Vratsa District affected by endemic nephritis and 8 control villages in the same district in which nephritis occurs only seldom was studied. The period from 1945 to 1964 was covered. The study indicated that the predominant cause of death (in 28.2% of all deaths) in the villages affected was nephritis, while the principal cause of death in the control villages was heart failure (25%) and deaths from nephritis amounted to only 7.7% of the total. The fraction of deaths from endemic nephritis in the villages affected was 1/3 of the total. Endemic nephritis constitutes an important health and social problem in the Vratsa District. The disease affects principally persons in the age group from 30 to 70 years. Its occurrence in Yugoslavia and Rumania was also reported. Tables, 5 references (all Bulgarian). Russian and English summaries. Manuscript received Jul 66.

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SMIRNOV, G.M.; IVANOV, A.A.; BOCHAROV, V.A.; KOSTYUCHENKO, N.T.;
    MEDYNSKIY, A.F.; MISHCHENKO, V.P.; TANCHIK, Ye.M.

Welded ladle for pouring steel. Met. i gornorud. prom. no. 2:
65 Mr-Ap '64.   (MIRA 17:9)

PHIL'KEVICH, N.N., Dotsent; [illegible], [illegible],

Treating mastitis in cows. Veterinariia 41 no.8:[illegible]

1. Severo-Kavkazskiy sel'skokozyaystvennyy institut (for Phil'-kevich). 2. Molokovskaya vet rinarnaya lechebnitsa, Krasnokholm-skogo rayona, Kalininskoy oblasti (for Tanchanin).

DUBENKO, R.G.; TANCHUK, Yu.V.; PEL'KIS, P.S.

Synthesis and study of derivatives of trimethylenetrisulfone. Part 1:
2,4,6-Triarylhydrazones of trimethylene-1,3,5-trisulfone. Zhur.ob.khim.
34 no.2:682-684 F '64.   (MIRA 17:3)

1. Institut organicheskoy khimii AN UkrSSR.

DUBENKO, R.G.; TANCHUK, Yu.V.; PEL'KIS, P.S.

Synthesis and investigation of trimethylenetrisulfone
derivatives. Part 2:Arylhydrazono-and aryl azo derivatives
of trimethylenetrisulfone. Zhur. ob. khim. 34 no. 5:
1636-1638 My '64.   (MIRA 17:7)

1. Institut organicheskoy khimii AN UkrSSR.

FURENKO, S.G.; PANCHUK, Yu.V.; PEL'KIS, P.S.

Synthesis and study of trimethylene trisulfone derivatives.
Part 6: Reaction of trimethylene trisulfone and its
derivatives with unsaturated compounds. Ukr. khim.
zh. 31 no.11:2046-2050 N '65.

1. Institut organicheskoy khimii AN UkrSSR. Submitted
September 19, 1964.

DUBENKO, R.G.; TANCHUK, Yu.V.; KISHENKO, A.A.; PEL'KIS, P.S.

Synthesis and study of trimethylene trisulfone derivatives.
Part 3: Infrared spectra of arylazo and arylhydrazono derivatives
of 2,4,6-trimethylene 1,3,5-trisulfone. Zhur. org. khim. 1
no.9:1692-1696 S '65.   (MIRA 18:12)

1. Institut organicheskoy khimii AN Ukrainskoy SSR. Submitted
March 17, 1964.

DUBENKO, R.G.; TANCHUK, Yu.V.; PEL'KIS, P.S.

Synthesis and study of trimethylene trisulfone derivatives.
Part 4: Arylazo derivatives of 2,4,6-trimethylene 1,3,5-
trisulfone and products of their reduction. Zhur. org. khim.
1 no.9:1696-1699 S '65.   (MIRA 18:12)

1. Institut organicheskoy khimii AN Ukrainskoy SSR. Submitted
April 13, 1964.

TANCIK, Iadi, h.z.

Agropedologic characteristics of the ?.. River Basin in
Slovenia. Geogr vest 35:35-5? '63   [publ. '64]

TANCIU, I.

SURNAME, Given Names

Country: Rumania

Academic Degrees: -not given-

Affiliation: *)

Source: Timisoara, _Timisoara Medicala_, Vol VI, No 1, Jan-Jun 1961, pp 33-37

Data: "Reanimation in Terminal Collapse State With Transfusions of Oxygenated Blood Through Artificial Heart-Lungs."

Authors:

MANDACHE, F.   ROSCA, S.   LUTESCU, I.
MATEESCU, D.   CIOPALA, E.   CANTARGIU, Sofia
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*) Work performed at the Surgical Clinic of "Brincovenesc" Hospital (Clinica de Chirurgie a Spitalului "Brincovenesc"), Director: F. MANDACHE.

TANCJUR, A.; REUTT, E.

"Radiocommunication Between Trains and Some Problems of its Development.
Tr. From the Russian", P. 47, (KOZLEKEDESTUDOMANYI SZEMLE, Vol. 4, No. 2,
Feb. 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,
Dec. 1954, Uncl.

BUTACIU, Florica; TANCO,L.

    Fractioning polyvinyl alcohol. Rev caimie Min petr 14
    no.11/12:643-646 N-D'63.

    1. Institutul de Cercetari Chimice al Ministerului Industriei
    Petrolului si Chimiei (for Tanco).

TANCO, M., ing.

Some problems connected with ship repairs. Rev transport 8
no. 3:111-116 Mr '61.

BALLA, Bela, a kemiai tudomanyok kandidatusa; TANCSA, Andras

New process for the calcination of aluminum fluoride. Kem tud ko~l
MTA 15 no.1:83-85 '61.   (EEAI 10:6)
        (Calcination) Aluminum fluorides)

BALLA, Bela, dr. (Budapest, XII., Kekgolyo u.5); GYIMES, Oliver
(Veszprem, Wartha Vince u.1/3); TANCSA, Andras (Veszprem,
Wartha Vince u.1/3)

Production of phosphate containing feed salts. Acta
chimica Hung 40 no. 2:245-259 '64.

1. Forschungsinstitut fur Chemische Schwerindustrie, Veszprem.

TANCZER, T.; AMBROZY, P. ; GOTZ, G.

Numerical forecasting of contour charts by the aid of Buleev's barotropic method.   In Russian. P. 74.

IDOJARAS.   (Meteorologiai Intezet es Magyar Meteorologiai Tarasg) Budapest, Hungary. Vol. 63, No. 2, Mar./Apr. 1959

Monthly List of East European Accessions, (EEAI)LC, Vol. 9, no. 1, Jan. 1960 Uncl.

TANCZER, Tibor

On the evaluation cf numerical forecasts. Idojaras 64 no.1:49-52
Ja-F '60.   (EEAI 10:1)
        (Weather forecasting)

GOTZ, Gusztav; TANCZER, Tibor

Position of divergence-free level in atmosphere. Idojaras 64 no.4:
225-229 Jl-Ag '60.   (EEAI 10:2)
        (Atmosphere)

TANCZER, Tibor

        Windstorms caused by thundersquall. Orsz meteor int besz
        tud kut 25:41-47 '61 (publ.'62).

TANCZER, Tibor

The August 19, 1960, squall line. Idojaras 65 no.5:305-308 S-0 '61.

(Hungary--Thunderstorms)

TANCZER, Tibor

Atmospheric divergence. Orsz meteor int besz tud kut 26:76-83
'62(publ.'63).

AMBROZY, Pal; TANCZER, Tibor

Forecasting the maximum velocity of thunderstorms. Orsz meteor int
besz tud kut 26:84-87 '62(publ.'63).

S/169/62/000/012/051/095
D228/D307

AUTHOR: Tánczer, Tibor

TITLE: Squall lines

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 12, 1962, 44-45,
               abstract 12B296 (Idöjárás, 66, no. 1, 1962, 36-37
               (Hun.; summary in Eng.))

TEXT: Some Hungarian definitions of the term "squall line"
are suggested. The main features of this phenomenon are described,
and considerations are expressed about the most suitable Hungarian
term.
/ Abstracter's note: Complete translation_/

Card 1/1

CZELNAI, Rudolf; MEZOSI, Miklos; TANCZER, Tibor

     Meteorological questions of establishing automatic anemometric
     installations in the Balaton area. Idojaras 67 no.2:86-90
     Mr-Ap '63.

CZELNAI, Rudolf; MEZOSI, Miklos; TANCZER, Tibor

Problems of instruments and telecommunication technique in
conjunction with establishing an automatic anemometric network
in the region of Lake Balaton. Idojaras 67 no.3:149-153 My-Je '63.

AMBROZY, Pal; GOTZ, Gusztav; TANCZER, Tibor

    Examination of sudden windstorms in the region of Lake Balaton.
    Idojaras 67 no.3:153-158 My-Je '63.

TANCZER, T.

Hungarian meteorologists with UNESCO scholarships. Időjárás
68 no.1:61   Ja-F '64.

TANCZER, T.

Storm warnings at Lake Balaton are 30 years old. Isojaros 68 no.3:
188-189 My-Je '64.

SZEPESI, Dezso; TANCZER, Tibor

Genesis of the cyclone over the Gulf of Genoa as reflected
in the cloud pictures taken by TIROS TV. Idojara 68 no.4:
193-200 Jl-Ag '64.

TANCZER, Tibor

Sending up the first artificial meteorological moon "Nimbus."
Idojaras 68 no.4:255-256 Jl-Ag '64.

L 9853-66   FCC

ACC NR: AP6004039

SOURCE CODE: HU/0033/65/069/002/0077/0083

AUTHOR: Gotz, Gustav; Tanczer, Tibor

ORG: none

TITLE: Windstorms during the summer season in the Balaton Lake area

SOURCE: Idojaras, v. 69, no. 2, 1965, 77-83

TOPIC TAGS: wind, storm, air mass

ABSTRACT: The windstorms observed during the summer seasons between 1958 and 1963 in the region of Lake Balaton were classified as (1) storms followed by air-mass exchange, (2) storms caused by the increase of the pressure gradient, (3) instability storms generated by the release of the instability energy within the air mass. Two secondary types were included in each of these categories. Storms were statistically analyzed according to month, part of the day, direction, intensity, and duration. The times of the beginning of the storm and the time of the occurrence of maximum wind velocity were also taken into consideration. The results of the statistical analysis were interpreted in terms of synoptic-climatological factors. Orig. art. has: 2 figures, 2 tables. /JPRS/

SUB CODE: 04 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 002

Card 1/1

KOPPANY, Gy.; HILLE, Alfred; KAKAS, Jozsef; FUTO, Jozsef; KERI,
        Menyhert; PECZELY, Gyorgy; KOZMA, Bela; SZAPPANOS, Andras;
        AMBROZY, Pal; GOTZ, Gusztav; PAPP, Laszlo; BELL, Bela;
        MARTOS, Andras; BACSO, Nandor; HAJOSY, Ferenc; CSAPODY,
        Istvan; NAGY, Laszlo, igazgato foorvos; DONASZY, Erno;
        BORONKAI, Pal; ANTAL, Emanuel; TANCZER, Tibor; OZORAI,
        Zoltan

The 10th itinerant meeting of the Hungarian Meteorological
Society in Sopron. Idojaras 68 no.4:249-250 Jl-Ag '64.

1. President, Hungarian Meteorological Society (for Hille).
2. Editor. "Idojaras" (for Kakas). 3. Editorial Board
Member, "Idojaras", Budapest (for Ambrozy, Bell, Keri,
Ozorai).

L 31370-66   FCC/FSS-2   IT

ACC NR: AP6021122   SOURCE CODE: HU/0033/65/069/04-/0218/0225

74

B

AUTHOR: Szeposi, Dozso; Tanczer, Tibor

ORG: none

TITLE: Cloud analysis in the conventional manner and with the aid of artificial satellites under various meteorological conditions

SOURCE: Idojaras, v. 69, no. 4-5, 1965, 218-225

TOPIC TAGS: atmospheric cloud, artificial satellite, spaceborne atmospheric photography, meteorologic observation, spaceborne atmospheric observation

ABSTRACT: Data provided by the Tiros satellite regarding cloud formations over the Alps and the Carpathian Mountains were presented and discussed to illustrate the advantages and disadvantages of cloud analysis with the aid of artificial satellites. The advantages are that the findings are objective and not limited by the horizon; the disadvantages are that the resolution of the transmitted pictures is imperfect, distorted at the edges, and the locations of the pictures cannot be always precisely identified. The advantages were judged to outweigh the disadvantages and the method was found to contribute to the development of cloud studies. Orig. art. has: 5 figures. [JPRS]

SUB CODE: 04, 22 / SUBM DATE: none / ORIG REF: 002

Card 1/1

L 38645-66   FCC

ACC NR: AP6027669   SOURCE CODE: HU/0033/66/000/002/0069/0080

AUTHOR: Tanczer, T.

ORG: none

TITLE: Determination of large-scale divergence and vertical velocity

SOURCE: Idojaras, no. 2, 1966, 69-80

TOPIC TAGS: wind velocity, atmospheric wind field, mathematic deduction

ABSTRACT: The author recommends a new method for divergence calculation for large-scale processes. It involves the computation of the divergence field by a grid having equilateral hexagons (d = 540 km.). The essence of this computational nomogram is a square having the same side length as the double grid distance. From this, the radial component of the wind data is interpolated to the grid points in an easy manner. The author then deals with the calculation of the vertical velocity at the 850-mb. level. He considers that the velocity at this level plays an important role in the frictional convergence. Orig. art. has: 5 figures and 13 formulas. [Based on author's Eng. abst.] [JPRS: 36,457]

SUB CODE: 04, 12 / SUBM DATE: none / ORIG REF: 002 / SOV REF: 002
OTH REF: 006

Card 1/1

TANCZOS, Laszlo, okleveles gepeszmernok

Special solutions in the design of "Transandino" motorcars constructed by the Ganz-MAVAG Works. Jармu mezo gep 11 no.9:321-331 S '64.

1. Ganz-MAVAG.

TANCZOS, Mihaly

      The new Petofi transmitter. Musz elet 19 no.17:1, 12 13 Ag '64.

TANCZOS, Zsolt (Budapest, V., Pesti Barnabas u.1)

An experimental device for the anslytic study of the interaction between perception and movement. Magy pszichol szemle 17 no.1:60-62 '60.

1. Eotvos Lorand Tudomanyegyetem Bolcseszeti Kar lelektani tanszeke. Vezeto: dr, Kardos Lajos egyetemi tanar, a nevelestudomanyok (pszichologia) doktora.

TANCZOS, Zsolt

"Perception and conditioned response" by E.N. Sokolov. Reviewed
by Zsolt Tanczos. Magy pszichol szemle 17 no.1:98-99 '60.

TANCZOS, Zsolt

"The touch in the process of the cognition and work" by B.G. Ananyev, L.M. Vekker, B.F. Lomov, A.V. Yarmolenko. Reviewed by Zsolt Tanczos. Magy pszichol szemle 17 no.1:101-102 '60.

TANCZOS, Zsolt, dr., kandidatus

Sensorial processes and memory. Magy pszichol szemle 21 no.2:
249-253 '64.

1. Institute of Child Psychology, Hungarian Academy of Sciences,
Budapest.

TANDELMAYER, F.

"Experiences with the growing of poplars."

p. 295 (Les) Vol. 12, no. 7/8, July/Aug. 1956
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. VOL. 7, no. 4,
     April 1958

SOV/137-58-9-20290

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 310 (USSR)

AUTHOR: Tandetnitskaya, M.Ya.

TITLE: Rapid Method for the Determination of Silicon in Aluminum Alloys on the FEK-M type Photo-colorimeter (Uskorennyy metod opredeleniya kremniya v alyuminiyevykh splavakh na fotokolorimetre FEK-M)

PERIODICAL: V sb.: Mashinostroitel' Belorussii. Nr 4. Minsk, 1957, pp 153-154

ABSTRACT: The colorimetric determination of Si is based on the formation of a Si-Mo complex compound. To construct a graduated curve a series of solutions corresponding to the Si contents of 14.10, 15.28, 16.45, 17.62, and 18.80% is prepared using the standard specimen Nr 113 with 11.75% Si. To do this, weighed amounts of the specimen are dissolved in 20 cc of 20% NaOH. The solution is transferred into 250-cc flasks, 70 cc of HNO_3 (1:1) are added, and the whole is heated until the complete dissolution of the precipitate; water is added up to the mark, 25-cc aliquot portions are transferred into 100-cc flasks which are
Card 1/2   filled up to the mark with water. 5 cc of each of the solutions

Rapid Method for the Determination of Silicon (cont.)

are transferred into 100-cc flasks, 15 cc of 15N H_2SO_4 and 5 cc of 5% ammonium molybdate solution are added, and, after 5 min 20 cc of 8N H_2SO_4 and 30 cc of a 5% solution of Mohr's salt (50 g of Mohr's salt are dissolved in 500 cc of water, 225 cc of concentrated H_2SO_4, and enough water to make 1 liter are added), are poured in, the flask is filled up with water to the mark, and the color density of the solution is measured in a 20-mm cell with a yellow-green light filter. Into the control solution all the reagents except the ammonium molybdate are added. In the determination of Si in an Al alloy containing 16-18% Si the 0.1-g test sample is dissolved in 20 cc of 20% NaOH, and the determination is continued as described above. The results of the determination of Si by the gravimetric and the colorimetric methods are adduced.

1. Silicon--Determination   2. Aluminum alloys--Colorimetric analysis   K.K.
3. Colorimetry--Equipment

Card 2/2

TANDILOVA, K. B.

"Relationship of the Sulfate Resistance of Puzzoland Portland Cements With Volcanic Derivative Admixtures to the Nature of the Admixtures and Their Alumina Content." Cand Tech Sci, Technical Administration, All Union Sci Res Inst of Glass, Min Construction Materials Industry USSR, Moscow, 1955. (KL, No 14, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

15-57-5-6572

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5,
                   p 124 (USSR)

AUTHORS: Royak, S. M., Myshlyayeva, V. V., Tandilova, K. B.

TITLE: An Investigation of Hydraulic Admixtures of Volcanic
              Origin (Issledovaniya gidravlicheskikh dobavok vulkani-
              cheskogo proiskhozhdeniya)

PERIODICAL: Sb. nauch. rabot po khimii i tekhnol. silikatov.
              Moscow, Promstroyizdat, 1956, pp 95-111.

ABSTRACT: Hydraulic admixtures investigated were the Ani pemza
              (pumice), the Yadrino, Abbastapinskiy, and Tedzamskiy
              tufy (tuffs), and tuff "B." The Abbastapinskiy and
              Tadrino tuffs and tuff "B," oversaturated with silica
              (and containing quartz, chalcedony, feldspar, and bio-
              tite), have a high activity (140 to 256 mg CaO per g)
              and at the same time a high loss in weight during
              roasting. They also have a high content of soluble
              alumina, up to nine percent. All cements containing
Card 1/2   a proportion of 50 percent admixture of these materials

15-57-5-6572

An Investigation of Hydraulic Admixtures of Volcanic Origin (Cont.)

are sulfate-resistant. The formation of calcium sulfo-aluminate in puzzolan portland cements, both from C_3A clinker and from alumina impurities, has a negative influence on the sulfate resistance of puzzolan portland cements in those cases in which the activity ratio of 1 mg of CaO to percentage of "soluble" Al_2O_3 in the mixture is less than 10 to 15. The specified technical conditions for the required content of C_3O (no more than eight percent) in the clinker of sulfate-resistant puzzolan cement that contains admixtures of sedimentary origin should be preserved by using a 30 percent proportion of the above-mentioned admixtures of volcanic material. Admixtures of volcanic origin, suitable for the manufacture of sulfate-resistant puzzolan portland cements, have a ratio of

$$\frac{1 \text{ mg CaO}}{\% \text{ "Soluble" } Al_2O_3}$$

greater than 10 to 15.

Card 2/2

V. P. Ye.